REMARKS/ARGUMENTS

Reconsideration of the rejections set forth in the Office Action dated August 12, 2004 is respectfully requested. Claims 1-22 have been rejected. Claims 23 and 24 have been added. As such, claims 1-24 are currently pending.

Claim 1 has been amended to more clearly recite that MAP messages are monitored to detect acknowledgment of receipt of data transmitted during a directed grant slot allocated to a subscriber unit. Claims 5, 8, 11, 14-16, and 20 have been amended in a similar manner as claim 1. Claim 3 has been amended to more clearly recite that after data is transmitted during a directed grant slot, the data is stored in an ARQ buffer for possible retransmission.

Support for the features of new claims 23 and 24 may be found in the Specification, as for example from page 12 at line 8 to page 13 at line 14.

Rejections under 35 U.S.C. § 103

Claims 1-22 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Jonas et al. (U.S. Patent Publication No. 2002/0036985 A1) in view of Hulyalkar et al. (U.S. Patent No. 6,069,901).

As described on page 7 of the Specification, beginning at line 4, upstream transmission slots supported by DOCSIS include "request/data' slots and "data grant" slots. Data grant slots are reserved for particular subscriber units, and are considered to be "directed" grant slots. During any **directed grant slot**, only one subscriber unit may transmit, whereas multiple subscriber units are permitted to transmit during a request/data slot. A collision may result from simultaneous transmission by multiple subscriber units during a request/data slot, so DOCSIS provides that upstream transmissions during request/data slots are acknowledged so that a subscriber unit knows that it need not repeat its transmission. As only one subscriber may

transmit during a directed grant slot, if follows that collisions are typically not in evidence during a directed grant slot.

Independent claim 1 requires a method for operating a subscriber unit that includes transmitting data to a central access point during a directed grant slot allocated to the subscriber unit, and monitoring MAP messages broadcast by the central access point to detect acknowledgement of receipt of the data. If no acknowledgment of receipt is indicated by the MAP messages, the data is retransmitted.

The Examiner has indicated that Jonas does not disclose monitoring MAP messages broadcast by a central access point to detect acknowledgment of receipt of data and also does not disclose retransmitting data if no acknowledgement of receipt is indicated by MAP messages (Office Action dated August 12, 2004, page 2). However, the Examiner has argued that Hulyalkar teaches of such features. It is respectfully submitted that none of the cited art, alone or in combination, teaches of or even reasonably suggests monitoring MAP messages broadcast by a central access point to detect acknowledgement of receipt of data that is transmitted during a directed grant slot allocated to a subscriber unit.

As stated above, only one subscriber unit may transmit during a directed grant slot. Hence, there are no collisions that may occur on the directed grant slot as a result of multiple subscriber units transmitting at the same time. Hulyalkar teaches that acknowledge (ACK) and not acknowledged (NAK) signals are used because of the likelihood of collisions (Hulyalkar, column 2 at lines 26-34). Therefore, the Applicants submit that Hulyalkar teaches of using such signals with respect to a request/data slot, since collisions would not occur on a directed grant slot. In other words, there is no motivation to implement an ACK signal and a NAK signal of Hulyalkar (which are implemented because collisions are likely to occur and a transmitter cannot detect such collisions as taught by Hulyalkar) with respect to a directed grant slot on which collisions would not occur. Hulyalkar does not suggest monitoring any messages broadcast by a central access point to detect acknowledgement of receipt of data that is transmitted during a directed grant slot, and therefore does not teach of retransmitting data that was transmitted during

a directed grant slot when no acknowledgement of receipt is indicated. Jonas does not overcome the deficiencies of Hulyalkar.

It is respectfully submitted that it would not be obvious to include the features of sending ACK or NAK in a MAP message that acknowledges receipt of data transmitted during a directed grant slot. DOCSIS does not provide an acknowledgment mechanism for data packets that have been unsuccessfully transmitted in directed grant slots (Specification, on page 8 at lines 1-6). Since Hulyalkar does not teach of sending ACK or NAK signals pertaining to anything but slots on which collisions may occur (and, as previously discussed, collisions may not occur during directed grant slots since only one subscriber is allowed to transmit during a directed grant slot), and Jonas does not overcome the deficiencies of Hulyalkar, claim 1 is believed to be allowable over the cited art because no combination of the cited art reasonably suggests that MAP messages are monitored for an acknowledgment of receipt of data transmitted during a directed grant slot.

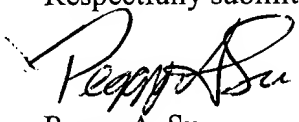
Claims 2-4 each depend either directly or indirectly from claim 1 and are each, therefore, each believed to be allowable over the cited art for at least the reasons set forth above with respect to claim 1. Each of these dependent claims recites additional limitations which, when considered in light of claim 1, are believed to further distinguish the claimed invention over the cited art. By way of example, claim 3 requires that after data is transmitted to a central access point during a directed grant slot, the data is stored in an ARQ buffer for possible retransmission. The Examiner has acknowledged on page 4 of the Office Action dated August 12, 2004 that Jonas does not disclose storing data in an ARQ buffer for possible retransmission after transmitting the data during a directed grant slot. It is respectfully submitted that, as discussed above, Hulyalkar teaches of request/data slots in that Hulyalkar teaches of collisions. Hence, it follows that Hulyalkar does not teach of storing data transmitted during a directed grant slot. As such, claim 3 is believed to be allowable for at least this additional reason as well.

Claims 5, 8, 11, 14-16, and 20 recite similar limitations pertaining to a directed grant slot as those recited in claim 1. As such, each of these claims, as well as their respective dependents, are believed to be allowable over the cited art for at least the reasons set forth above.

Conclusion

For at least the foregoing reasons, Applicant believes all the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 446-8696.

Respectfully submitted,



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